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EXAMINER
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SHANG, ANNAN Q

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2614

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/238,261	<b>Applicant(s)</b> INOUE ET AL.	
	<b>Examiner</b> Annan Q. Shang	<b>Art Unit</b> 2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 32,33,36-38,40,41,43-45 and 47-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 32,33,36-38,40,41,43-45 and 47-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 32-33, 36-38, 40, 41, 43-45 and 47-50, have been considered but are moot in view of the new ground(s) of rejection. The amendment to all the independent claims necessitated the new ground(s) of rejections discussed below.

With respect to claims 51-54, Applicant argues that none of the references cited by the Examiner, teaches or suggests the particular features of the invention recited in claims 51-54, discusses Aras's and Seidman numerous ways of transmitting data upstream, citing column 6, lines 38-45 of Seidman reference (one of the numerous ways of transmitting data upstream), arguing further that "Seidman describes all these actions occurring but does not describe any intervention being required on the part of the user. ...requires an authorizing input after a loss of power, prior to causing an selection history information to be stored and/or transmitted after power is restored."

In responses Examiner disagrees. Applicant admits that Aras in view of Seidman teach uses numerous ways to transmit upstream data, including each time the system is powered on, which implies that at power off "loss of power" the system automatically stores user behavior on monitored data and transmits accordingly when the power is restored. Seidman further teaches in column 6, lines 53-65, VRS historical reports containing subscriber selection history information can be used by the head end to monitor programs and commercial messages and VRS report is used by the head end to determine the status of the user's equipment and to diagnose problems. "Reports to

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the head end can be also prompted by the head end by the use of 'send report' message send by in the 'private data' area of a video stream or in a non-video control stream." These teachings of determining the status of the user's equipment and problems and sending "send report" message, requires the user to perform actions to send VRS data upstream and clearly meets the claimed limitation requiring authorized input after receiving, at the head end, status information or any problems, etc. (which includes power loss), associated with the user's equipment. Hence, Aras in view of Seidman meets the claimed limitations, is proper and maintained as discussed below.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Aras et al (5,872,588)** view of **Seidman et al (6,298,482)**.

As to Claim 51, note the **Aras et al** reference Figures 1 and 15, teach a broadcast-program selection history Information acquisition apparatus, comprising the following:

the claimed "storage means operable to store selection information regarding the selection of broadcast programs..." is met by Memory 1706 of Home Station (HS) 111 (figs. 1B, 15 col. 26, line 5-20), note that Memory 1706 stores selection information

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regarding the programs at predetermined times when the user performs selection and interacts with channel(s) of the Audio-Visual Materials (AVMs) "programs" (col. 4, lines 58-66) from among AVMs broadcast on a plurality of channels (col. 13, lines 25-38, lines 62-col. 14, line 24 and lines 44-67);

the claimed "a transmitter operable to transmit selection history information including a plurality of pieces of said selection information stored..." is met by Communication Adapter Controller (CAC) 1557 of HS 111 (fig. 15, col. 14, lines 25-35), note that CAC 1557 is a transmitter (col. 25, lines 7-13), which periodically or "at a preselected time" transmits the Behavior Collection Table (BCT) data "selection history information" which is composed of a plurality of pieces of the selection information stored at a plurality of acquisition times, to Behavior Collection Center (BCC) 121 "a notification destination," at predetermined transmission timing which further includes, when HS 111 automatically turns 'ON,' at a preselected time or by subscriber (col. 14, lines 30-33), on the fly (col. 17, lines 4-23) or at a predetermined threshold of the M 1706;

the claimed "a processor operable to cause said selection history information to be stored in a said storage..." is met by Monitor Controller (MC) 1707 (fig. 17 and col. 25, line 42-col. 26, line 1+), note that MC 1707 in conjunction with I/O Controller 1705, is an event driven process that responds to events that are generated by the subscriber, and causes storing of events or selection history information in Memory 1706 during power off or power outage and further causes events or selection history information to

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be transmitted by CAC 1557 when the power is ON or restored by the user of HS 111 or automatic turning by a preselected time (col. 16, lines 34-51 and col. 18, lines 39-65).

Aras, fails to explicitly teach authorizing input from a user upon restoration of power.

However, Seidman teaches a viewer response monitoring system where a headend can determine the status and diagnose problems of VRS historical reports and send prompt(s) or message(s) to the VRS to authorize the user to send the VS historical report (col. 6, lines 53-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Seidman into the system of Aras, to send message to authorizes an input from the user based on the status of the Home Station, such as restoring of power, etc., to enable the headend to communicate to the user to retrieve selection history information after a power outage or at anytime based on the status of the Home Station.

As to claim 52, the claimed "power-supply detection circuit operable to detect at least one of a power loss is inherent to the HS 111 (col. 16, lines 34-51 and col. 18, lines 39-65), since the HS 111 can detect power OFF and ON operations and store selection information accordingly.

As to claim 53, Aras inherently teaches where the power is an alternating current (AC) power, since the HS 111 is a home receiver, settop box, etc, (col. 5, lines 34-67) can use any power source in the home, including AC power.

As to claim 54, Aras further teaches where HS 111 comprising a user application executable by MC 1707 to acquire selection information based on user selection and initialize the user application in responses to power ON (col. 14, lines 44-67, col. 18, lines 39-65), and further teaches automatic turning ON and initializing the HS 111 based on preselected time (col. 14, lines 25-32)

Aras, fails to explicitly teach authorizing input from a user upon restoration of power for execution of user application.

However, Seidman further teaches where the headend can determine the status of VRS historical reports and send a prompt or message to the VRS to authorize the user to send the VS historical report (col. 6, lines 53-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Seidman into the system of Aras, to send message to authorizes an input from the user based on the status of the Home Station, such as restoring of power, etc., for execution of user application to enable the headend to communicate to the user of the Home Station, to retrieve selection history information after a power outage or at anytime based on the status of the Home Station.

4. Claims 33 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hendricks et al (5,798,785)** view of **Malik (6,462,832)**.

As to Claims 33 and 41, note **Hendricks et al** reference figures 1-4, disclose a television system for gathering and analysis of user behavior data and further disclose a

broadcast-program selection history Information acquisition apparatus and method, comprising the following:

the claimed "storage means operable to store selection information regarding the selection of broadcast programs..." is met by Storage (S) 620 of Set top terminal (STT) 220 (figs. 4-6 and col. 21, line 56-col. 22, line 13), which stores information regarding each program watched at a predetermined acquisition times from among programs broadcast on a plurality of channels;

the claimed "transmission timing assignment means operable to assign a transmission timing..." is met by Microprocessor 602 (col. 13, lines 35-46, line 56-col. 14, line 6 and col. 15, line 56-col. 16, line 24), which assigns a transmission timing to Modem 627 in response to polling signals receives via Headend 208;

the claimed "transmission means operable to transmit selection history information including a plurality of pieces of the selection information stored at a plurality of acquisition times through a predetermined telephone line..." is met by Modem 627 (col. 13, lines 35-46, line 56-col. 14, line 6 and col. 15, line 56-col. 16, line 24), which transmits selection history or behavior information of the plurality of pieces of selection information stored at a plurality of the acquisition times through a predetermined telephone lone to the Headend "notification destination" at the transmission timing, which includes transmission on a scheduled (using polling response or status report to respond to polling requests sent from Headend 208), as-needed (using a random access technique) basis (col. 14, lines 1-6, col. 21, line 66-col. 22, line 31 and line 32+).



Hendricks teaches identifying each STT 220 by a unique address and STT identifier (such as a telephone number), including identifying STT 220 by corresponding geographical location associated with a particular or group of STT 220 and sending polling response and receiving upstream data via a predetermined telephone line, but fails to explicitly teach a transmission timing based on a telephone number assigned to the telephone line.

However, note the **Malik** reference figures 1-2 and 8, disclose a polling system over a telephone line, where a Destination Server 30, polls various Source Terminals 10 for data using a telephone number assigned to the telephone line (figs. 4, 7, col. 7, lines 6-18 and col. 8, line 66-col. 9, line 34).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Malik into the system of Hendricks to route upstream data to one or more destination terminals base on the assigned telephone number assigned to the telephone line.

5. Claims 32, 36-38, 40, 43-45 and 47-50, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Aras et al (5,872,588)** in view of **Bestler et al (5,535,206)**, and further in view of **Seidman et al (6,298,482)**.

As to Claim 32, note the **Aras et al** reference Figures 1 and 15, teach a broadcast-program selection history Information acquisition apparatus operable in a system including a multiplicity of the broadcast-program selection history information

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acquisition apparatuses and a notification destination, the broadcast programs selection history information acquisition apparatus, comprising the following:

the claimed "storage means operable to store selection information regarding the selection of broadcast programs..." is met by Memory 1706 of Home Station (HS) 111 (figs. 1B, 15 col. 26, line 5-20), note that Memory 1706 stores selection information regarding the programs at predetermined times when the user performs selection and interacts with channel(s) of the Audio-Visual Materials (AVMs) "programs" (col. 4, lines 58-66) from among AVMs broadcast on a plurality of channels (col. 13, lines 25-38, lines 62-col. 14, line 24 and lines 44-67);

the claimed "transmission means operable to periodically transmit selection history information including a plurality of pieces of said selection information stored..." is met by Communication Adapter Controller (CAC) 1557 of HS 111 (fig. 15, col. 14, lines 25-35), note that CAC 1557 is a transmission means (col. 25, lines 7-13), which periodically or "at a preselected time" transmits the Behavior Collection Table (BCT) data "selection history information" which is composed of a plurality of pieces of the selection information stored at a plurality of acquisition times, to Behavior Collection Center (BCC) 121 "a notification destination," at predetermined transmission timing which further includes, when HS 111 automatically turns 'ON,' at a preselected time or by subscriber (col. 14, lines 30-33), on the fly (col. 17, lines 4-23) or at a predetermined threshold of the M 1706, note further that the various transmission timing, enables BCC to receive multiplicity of BCT data from HS 111 and process them accordingly; note further that the HS 111, has a Satellite dish and receives satellite broadcast of

"multiplicity of broadcast programs" and BCT data consists of "a multiplicity of broadcast-program selection history information" which are generated at HS 111.

Aras, fails to explicitly teach transmission timing assigned at random in accordance with an intrinsic random number and not in response to data transfer request received from a device external to the broadcast-program selection history information acquisition apparatus.

However, note the **Bestler** reference figures 1 and 2, teaches cable television upstream data transmission system which provides a plurality of time slots synchronized to the downstream symbol clock "transmission timing assigned at random..." for use by subscriber terminals in upstream data transmission, where a Microprocessor 40 "a random number generator" and Upstream Transmitter 50 at the subscriber terminal, properly time upstream communication to the head end, using dynamically programmable controlled plurality of program values or system parameters (various signals and the symbol clock) contained in the downstream data (figs. 1-2 and col. 2, lines 33-37 and col. 3, line 43-col. 4, line 20), note that the dynamically programmable parameters within the downstream data, enables the subscriber terminal to randomly send upstream data, without any responses from a device external to the subscriber terminal.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Bestler into the system of Aras in order to randomly transmit upstream data at anytime from a subscriber terminal to head end or server, reduce the effect of interference or collision between terminals, and further

respond dynamically to operating changes within the cable television system by using controlled programmable system parameters.

Aras as modified by Bestler fails to explicitly teach transmission timing being assigned within a predetermined restricted range of hours beginning at a predetermined time of day in which the multiplicity of the broadcast-program selection history information acquisition apparatuses are restricted to transmit.

However, note **Seidman et al** reference figures 1, 2 and 5 disclose an Interactive Television System (ITV) that monitors viewer history reports, where collection by the headend of the VRS historical reports, of the user, is done at times when the user is not viewing programs, such as during late night hours "predetermined restricted range of hours..." (col. 6, lines 59-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Seidman into the system of Aras as modified by Bester to transmit selection history information within a predetermined restricted range of hours beginning at a predetermined time of the day in order not to interfere with the programs being view and also to retrieve information during off peaks hours when bandwidth utilization is less.

As to claim 36, Aras further discloses a broadcast-program selection history information acquisition apparatus where the selection information includes channel number information regarding the selected broadcast program and time information showing the time when the broadcast program is selected (fig. 14 and col. 14, line 66-col. 18, line 9).

As to Claim 37, Aras further discloses a broadcast-program selection history information acquisition apparatus where the selection history information includes an identification number intrinsically assigned to the broadcast program selection history information acquisition apparatus (fig. 14 Home Station ID Number and Subscriber Number).

As to claim 38, Aras as modified by Johnson, fail to explicitly where HS 111 is operable to change at least one of a setting for the predetermined acquisition times and setting for the transmission timing based on a change command transmitted from the BCC 121.

However, Seidman further teaches where the headend can determine the status of VRS historical reports and send a prompt or message to the VRS to request for the historical reports (col. 6, lines 53-65), note that by send a message from the headend, requesting the transmission of VRS historical report, transmission timing is changed since at least one of a setting for the predetermined acquisition times, has to be altered for headend request to be granted.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Seidman into the system of Aras as modified by Bestler, to send message to alter the predetermined timing of receiving selection history information, thereby enabling the headend to communicate to the user and control the various Home Stations as desire and retrieve information accordingly.

As to Claim 40, note the **Aras et al** reference Figures 1 and 15, teach a method of acquiring selection history information comprising the steps of:

the claimed "providing a multiplicity of broadcast-program selection history information acquisition apparatuses" is met by Home Station (HS) 111 (figs. 1B, 15 col. 26, line 5-20), note that the HS 111, has a Satellite dish and receives satellite broadcast of "multiplicity of broadcast programs" and acquires BCT data consists of "a multiplicity of broadcast-program selection history information" which are generated at HS 111.

the claimed "storing selection information regarding the selection of broadcast programs..." is met by Memory 1706 of Home Station (HS) 111 (figs. 1B, 15 col. 26, line 5-20), note that Memory 1706 stores selection information regarding the programs at predetermined times when the user performs selection and interacts with channel(s) of the Audio-Visual Materials (AVMs) "programs" (col. 4, lines 58-66) from among AVMs broadcast on a plurality of channels (col. 13, lines 25-38, lines 62-col. 14, line 24 and lines 44-67);

the claimed "periodically transmitting selection history information from said apparatuses to a notification destination..." is met by Communication Adapter Controller (CAC) 1557 of HS 111 (fig. 15, col. 14, lines 25-35), note that CAC 1557 is a transmitter (col. 25, lines 7-13), which periodically or "at a preselected time" transmits the Behavior Collection Table (BCT) data "selection history information" which is composed of a plurality of pieces of the selection information stored at a plurality of acquisition times, to Behavior Collection Center (BCC) 121 "a notification destination," at predetermined transmission timing which further includes, when HS 111 automatically turns 'ON,' at a preselected time or by subscriber (col. 14, lines 30-33), on the fly (col. 17, lines 4-23) or at a predetermined threshold of the M 1706, note further

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that the various transmission timing, enables BCC to receive multiplicity of BCT data from HS 111 and process them accordingly.

However, note the **Bestler** reference figures 1 and 2, teaches cable television upstream data transmission system which provides a plurality of time slots synchronized to the downstream symbol clock "transmission timing assigned at random..." for use by subscriber terminals in upstream data transmission, where a Microprocessor 40 "a random number generator" and Upstream Transmitter 50 at the subscriber terminal, properly time upstream communication to the head end, using dynamically programmable controlled plurality of program values or system parameters (various signals and the symbol clock) contained in the downstream data (figs. 1-2 and col. 2, lines 33-37 and col. 3, line 43-col. 4, line 20), note that the dynamically programmable parameters within the downstream data, enables the subscriber terminal to randomly send upstream data, without any responses from a device external to the subscriber terminal.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Bestler into the system of Aras in order to randomly transmit upstream data at anytime from a subscriber terminal to head end or server, reduce the effect of interference or collision between terminals, and further respond dynamically to operating changes within the cable television system by using controlled programmable system parameters.

Aras as modified by Bestler fails to explicitly teach transmission timing being assigned within a predetermined restricted range of hours beginning at a predetermined

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time of day in which the multiplicity of the broadcast-program selection history information acquisition apparatuses are restricted to transmit.

However, note **Seidman et al** reference figures 1, 2 and 5 disclose an Interactive Television System (ITV) that monitors viewer history reports, where collection by the headend of the VRS historical reports, of the user, is done at times when the user is not viewing programs, such as during late night hours "predetermined restricted range of hours..." (col. 6, lines 59-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Seidman into the system of Aras as modified by Bestler to transmit selection history information within a predetermined restricted range of hours beginning at a predetermined time of the day in order not to interfere with the programs being view and also to retrieve information during off peaks hours when bandwidth utilization is less.

As to claim 43, Aras further discloses a broadcast-program selection history information acquisition method where the selection information includes channel number information of the selected broadcast programs and time information showing the times when the broadcast programs are selected (fig. 14 and col. 14, line 66-col. 18, line 9).

As to Claim 44, Aras further discloses a broadcast-program selection history information acquisition method wherein the selection history information includes an identification number intrinsically assigned to a particular one of the broadcast program



selection history information acquisition apparatus (figure 14, Home Station ID Number and Subscriber Number)

As to claim 45, Aras as modified by Johnson, fail to explicitly where HS 111 further comprising changing at least one of a setting for the predetermined acquisition times and setting for the transmission timing based on a change command received from the BCC 121.

However, Seidman further teaches where the headend can determine the status of VRS historical reports and send a prompt or message to the VRS to request for the historical reports (col. 6, lines 53-65), note that by send a message from the headend, requesting the transmission of VRS historical report, transmission timing is changed since at least one of a setting for the predetermined acquisition times, has to be altered for headend request to be granted.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Seidman into the system of Aras as modified by Bestler, to send message to alter the predetermined timing of receiving selection history information, thereby enabling the headend to control the various Home Stations as desire and retrieve information accordingly.

As to Claim 47, note the **Aras et al** reference Figures 1 and 15, teach an apparatus for use in acquiring broadcast-program selection history Information, the apparatus, comprising:

The claimed "a front end section operable to select a broadcast program from among programs..." is met by Channel Selector 1558 of Home Station (HS) 111 (fig. 15

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and col. 24, lines 57-col. 25, line 5), which receives and select a broadcast program from programs broadcast on a plurality of channels in accordance with selection input provided by the user;

the claimed "a memory operable to store selection information associated with the selected broadcast programs..." is met by Memory 1706 of Home Station (HS) 111 (figs. 1B, 15 col. 26, line 5-20), note that Memory 1706 stores selection information associated with the selected broadcast programs at predetermined times when the user performs selection and interacts with channel(s) of the Audio-Visual Materials (AVMs) "programs" (col. 4, lines 58-66) from among AVMs broadcast on a plurality of channels (col. 13, lines 25-38, lines 62-col. 14, line 24 and lines 44-67);

the claimed "transmitter operable to transmit selection history information including a plurality of pieces of said selection information stored..." is met by Communication Adapter Controller (CAC) 1557 of HS 111 (fig. 15, col. 14, lines 25-35), note that CAC 1557 is a transmitter (col. 25, lines 7-13), which periodically or "at a preselected time" transmits the Behavior Collection Table (BCT) data "selection history information" which is composed of a plurality of pieces of the selection information stored at a plurality of acquisition times, to Behavior Collection Center (BCC) 121 "a notification destination," at predetermined transmission timing which further includes, when HS 111 automatically turns 'ON,' at a preselected time or by subscriber (col. 14, lines 30-33), on the fly (col. 17, lines 4-23) or at a predetermined threshold of the M 1706, note further that the various transmission timing, enables BCC to receive multiplicity of BCT data from HS 111 and process them accordingly; note further that the

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HS 111, has a Satellite dish and receives satellite broadcast of "multiplicity of broadcast programs" and BCT data consists of "a multiplicity of broadcast-program selection history information" which are generated at HS 111.

Aras, fails to explicitly teach transmission a random number generator operable to generate a random number and transmission timing assigned at random in accordance with an intrinsic random number and not in response to data transfer request received from a device external to the broadcast-program selection history information acquisition apparatus.

However, note the **Bestler** reference figures 1 and 2, teaches cable television upstream data transmission system which provides a plurality of time slots synchronized to the downstream symbol clock "transmission timing assigned at random..." for use by subscriber terminals in upstream data transmission, where a Microprocessor 40 "a random number generator" and Upstream Transmitter 50 at the subscriber terminal, properly time upstream communication to the head end, using dynamically programmable controlled plurality of program values or system parameters (various signals and the symbol clock) contained in the downstream data (figs. 1-2 and col. 2, lines 33-37 and col. 3, line 43-col. 4, line 20), note that the dynamically programmable parameters within the downstream data, enables the subscriber terminal to randomly send upstream data, without any responses from a device external to the subscriber terminal.

Therefore the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Bestler

into the system of Aras in order to randomly transmit upstream data at anytime from a subscriber terminal to head end or server, reduce the effect of interference or collision between terminals, and further respond dynamically to operating changes within the cable television system by using controlled programmable system parameters.

Aras as modified by Bestler fails to explicitly teach transmission timing being assigned within a predetermined restricted range of hours beginning at a predetermined time of day in which the multiplicity of the broadcast-program selection history information acquisition apparatuses are restricted to transmit.

However, note **Seidman et al** reference figures 1, 2 and 5 disclose an Interactive Television System (ITV) that monitors viewer history reports, where collection by the headend of the VRS historical reports, of the user, is done at times when the user is not viewing programs, such as during late night hours "predetermined restricted range of hours..." (col. 6, lines 59-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Seidman into the system of Aras as modified by Bestler to transmit selection history information within a predetermined restricted range of hours beginning at a predetermined time of the day in order not to interfere with the programs being view and also to retrieve information during off peaks hours when bandwidth utilization is less.

As to claim 48, Aras as modified by Johnson, fail to explicitly teach where the transmission means is operable to transmit a header, including identification number

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that includes a telephone number belong to a user of HS 111, when transmitting the selection history information.

However, Seidman further teaches transmitting user profile that includes a telephone number (figs 4, 5 and col. 7, line 56-col. 8, line 11).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Seidman into the system of Aras as modified by Johnson to include a user telephone number to an identification number to enable the headend to retrieve and transmit information via the telephone network.

Claim 49 is met as previously discussed with respect to claim 48.

Claim 50 is met as previously discussed with respect to claim 48.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fraser (6,546,006) discloses customer telecommunication interface device having a unique identifier.

Eisdorfer et al (5,960,348) disclose technique for use in processing telephone calls.

Kiefl (5,382,970) discloses television viewer monitoring system including portable data meter for each viewer.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q. Shang** whose telephone number is **571-272-7355**. The examiner can normally be reached on **700am-500pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W. Miller** can be reached on **571-272-7353**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC)** at **866-217-9197 (toll-free)**.



**Annan Q. Shang.**



**JOHN MILLER**  
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